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SAFEGUARDING YOUR FOOD AND DRUG SUPPLIES -- No. 30

A radio talk by W. W. Vincent, chief, western district, Federal Food and Drug Administration, delivered Thursday, January 15, 1931, through Station KGO, San Francisco, and associated National Broadcasting Company Stations, at 12:30 p.m. Pacific Time.

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Good morning, label readers! This is your Government representative who, each week at this hour, tells you how the food and drugs act safeguards your food and drug supply. I have been telling you about the various food commodities---their kinds and grades. You must read the label carefully if you would become a discriminating buyer. Last week, I told you something of vegetable oils; took you back 3,000 years to the first use of olive oil; showed you something of the adulterations practiced in modern times and gave you the important information necessary to purchase salad oils intelligently.

This week, I intend to tell of some products made from edible oils. I shall discuss shortenings, that is, lard and the various cooking compounds. Doubtless you will be surprised to learn that certain of the shortenings on the market contain some fish oil. Your Food and Drug Administration has, throughout the years, done a lot of work on oils and shortenings and the products into which they enter. You would be surprised at the number of places edible oils are used in the manufacture of food products. And for every one of those possible uses, some enterprising manufacturer has at some time conceived the idea of substituting mineral oil in place of the edible oil. It would cost less to manufacture could that be done. Of course, the food and drugs act prevents the use of mineral oil in food because, in common with all petroleum products, it has no food value and is neither digested nor assimilated in the system.

I can almost hear some of you say, "Why no food manufacturer would adulterate his product with a mineral oil." Yes they would, my friends. The Federal Notices of Judgment prove they did. As late as April, 1929, such an adulterated shipment was seized at Butte, Montana. What do you think it was? It was labeled in part "Mayonnaise * * Pure Food Products." Not only did it contain mineral oil, but, in addition, starch. To carry out the deception further an artificial yellow coal tar dye was added. The starch and dye served to give the impression of a greater egg content than was actually the case. Naturally, this

manufacturer knew that he could never justify his offense before a Federal court. He allowed the so-called "Mayonnaise" to suffer a default judgment. The U. S. Marshal destroyed it. In this way, my friends, the Food and Drugs Act penalizes those who adulterate and debase your food supply.

Since most of you buy mayonnaise, perhaps I should give you the Federal standard. Here it is - -

"MAYONNAISE, MAYONNAISE DRESSING, MAYONNAISE SALAD DRESSING, is the clean, sound semisolid emulsion of edible vegetable oil, egg yolk or whole egg, a vinegar and/or lemon juice, seasoned with one or more of the following: salt, sugar, spice, commonly used in its preparation. The finished product contains not less than 50 per cent of edible vegetable oil, and the sum of the percentages of oil and egg yolk is not less than 78."

Remember, a product labeled "Salad Dressing" and bearing no reference to Mayonnaise need contain no eggs. It may contain a considerable amount of the cheap ingredient, starch. Vegetable gums are sometimes used, but those must be declared on the label.

I'm off my subject. I was to speak of shortenings. Enormous quantities of shortenings are sold. Do you know what a shortening is? A shortening is that substance which renders pastry friable and "friable" means easily crumbled. Shortenings, therefore, include all edible oils and fats, either vegetable or animal, that bear the property of making pastry fluffy or crumbly. Lard and lard substitutes constitute the shortenings as we know them. The lard substitutes usually consist of hardened vegetable oils or mixtures of vegetable and fish oils. Lard substitutes contain no moisture and would be regarded as adulterated under the food and drugs act if they did. Added water is permitted, however, in substitutes designated as puff pastry shortening, which also bear a declaration of the presence of added water. The first lard substitutes generally consisted of mixtures of vegetable oil, usually cottonseed with beef tallow. The mixtures were generally 65% vegetable oil and 35% tallow. Manufacturers learned how to separate the tallow into stearine and olein and the compounds then became mixtures of 85% vegetable oil and 15% stearine. About 1912, manufacturers began to hydrogenate animal and vegetable oils. This process of adding hydrogen hardens them and a number of hardened vegetable shortenings are now available to you under various fanciful names.

Do you know how they hydrogenate and harden these vegetable oils? A current of hydrogen is passed through a heated oil, in the presence of finely divided nickel. This converts the oleins present in the oil to stearines with the result that your finished product is a solid material rather than a fluid oil with which you started. The nickel used in the process does not enter into combination with the oil and is removed.

I should tell you that the plants of manufacturers who ship, in inter-

state commerce, lard and lard compounds, as well as cooking and shortening fats in which animal fat is an ingredient, are under Government inspection and upon the packages of such material you will find the words "U. S. Inspected and Passed by the U. S. Department of Agriculture." Any plants that slaughter cattle, sheep, swine or goats which are intended for interstate or foreign commerce are under the constant supervision and inspection of representatives of your Federal Bureau of Animal Industry. That means qualified veterinarians have passed upon the animals and the animal materials used. The vegetable oils that enter into cooking compounds manufacture in government-inspected establishments are likewise inspected before permitted use.

Here's a distinction I want to point out. In order for a shortening to be labeled a "lard compound," it must contain at least 50% or more of lard or lard stearine. A "cooking compound" need contain no animal fat and many are made entirely from refined and deodorized vegetable oils and some are made from mixtures of such vegetable oils and fish oils. In their preparation, they are partially hydrogenated. They need not be manufactured in government-inspected plants if they do not contain any fat from animals previously mentioned. Most of these cooking compounds are sold under fanciful names, many of which give you no intimation as to the character of oil employed.

I have mentioned lard. There are three kinds: lard unqualified, leaf lard and neutral lard. Here are the definitions:

(1) Lard is the rendered fresh fat from hogs in good health at the time of slaughter, is clean, free from rancidity, and contains, necessarily incorporated in the process of rendering, not more than 1 per cent of substances other than fatty acids and fat.

(2) Leaf lard is lard rendered at moderately high temperature from internal fat of the abdomen of the hog, excluding that adherent to the intestines, and has an iodine number not greater than 60.

(3) Neutral lard is lard rendered at low temperatures.

When a product is labeled, "Lard," or "pure lard," it must conform with definition No. 1. When it is labeled, "Leaf Lard," it must be produced from the internal fat of the abdomen of hogs, excluding that adhering to the intestines. Because the internal fat of the hog occurs largely in folds or leaves, we get the term, "Leaf Lard." "Neutral Lard" is usually made in part at least from the leaves of fat referred to. It differs from "Leaf Lard" and "Lard" in that it is rendered at much lower temperatures, so that it is almost, if not entirely, devoid of taste and odor. I should tell you that "Neutral Lard," which is a high quality product, is usually used in the manufacture of oleomargarine. Seldom does it reach the consumer as "Neutral Lard." The best lard generally available to the consumer is the "Kettle Rendered Leaf Lard." "Kettle Rendered" and "Open Kettle Rendered" mean that the lard has been rendered in an open kettle and not in a steam tank or closed kettle.

"Lard" or "Pure Lard" can be of different qualities, depending upon its color, texture, odor and quality of free fatty acid present. Remember this: brand names wherein the word, "Leaf," constitutes a part of the brand, do not necessarily mean the product is leaf lard. For example, "Fig Leaf Brand Lard" is not necessarily leaf lard, but the product labeled, "Leaf Lard," unqualified, must be leaf lard.

There are many other fats and oils of which I should tell you but time does not permit. Enormous quantities of cocoanut oil are imported into the country and much is made in this country from copra imported from as far as the Philippines. Much of that oil reaches you in the nut margarines of which large quantities are sold. Some of it reaches you in the so-called cream fillings of your commercial bakery products and some of it in the coatings of your confections which you believe are chocolate or chocolate-coated products. Cocoanut oil has a wide usage with chocolate coating. Not only does it tend to lessen the cost of manufacture but, in addition, it slightly raises the melting point of the chocolate when used in certain forms. Of course, a chocolate product that contains cocoanut oil can not be labeled merely "Chocolate," or "Chocolate Coated", but it is required to have the presence of the added oil shown.

Oleomargarines, both the animal and vegetable oil products, are in a sense shortenings. They occupy an important place in the food field and I must tell you about them at a later date.

Now, my friends, I just want to tell you that this label reading movement is gathering lots of momentum. You'd be surprised how many teachers connected with home economics departments of our State institutions are writing to me and asking for material with which to supply their classes. Leaders in community clubs are becoming interested. Recently the entire membership of one of San Francisco's women's clubs visited our laboratory for the purpose of learning first hand just what your Food and Drug Administration is doing. They became so interested they paid a second visit and every one of those ladies requested my "Read-the-Label" information. The president of the club wrote me a letter at Thanksgiving, extending her compliments to my associates and myself for the work that we were doing and in that communication she said--

"It is my hope that all schools of learning will arrange in some way to see that all students, as well as the teachers, may have this unusual opportunity of obtaining this priceless information from you and your department for, after all, this will make more peace, real health and happiness, and last but not least, a satisfied customer and consumer."

With such interest being displayed by teachers, civic leaders, and the thousands of individuals who have written to me, wouldn't it seem desirable that everybody should know how to read labels? Remember, a great many manufacturers and the trade publications, and the buyers for large

wholesale institutions, are following these talks of mine and, if they are interested, you should be. The more information you demand upon the label the more information you are going to get.

I have talked on many products: tea, sirups, beverages, flavors, fake antiseptics, health foods, fish, cheese, and many others, and if you want this read-the-label information on those products, as well as the shortenings of which I have today told you, drop a post card to W. W. Vincent, U. S. Food and Drug Laboratory, San Francisco, or care of this station. It is free for the asking and should assist you in becoming a discriminating buyer.

Next week I guess I'll talk about pickles. Perhaps pickled olives. Quite a few things to know. Did you ever eat a fresh olive? A pretty bitter fruit. You should know how it is made palatable. I will tell you the difference between the ripe and green olive and, incidentally, I will tell you how some manufacturers have made the green ones look like ripe ones. I will tell you of the sizes and of the kinds generally packed. After that you should be able to purchase the kind you want---- if you read the label.

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